No. 8300143

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pioneer Hi-Bred International, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN

'G50'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 21st day of December in the year of our Lord one thousand nine hundred and eighty-four.

Attest:

Kenneth B. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

John R Block
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0005

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S)
Pioneer Hi-Bred International, Inc.

2. TEMPORARY DESIGNATION

3. VARIETY NAME
G50

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
Plant Breeding Division
Department of Corn Breeding
P.O. Box 85, Johnston, IA 50131-0085

5. PHONE *(Include area code)*
515/270-3300

FOR OFFICIAL USE ONLY

PVPO NUMBER
8300143

6. GENUS AND SPECIES NAME
Zea mays

7. FAMILY NAME *(Botanical)*
Gramineae

FILING
DATE: 6/1/83
TIME: 8:30 ☒ A.M. ☐ P.M.

8. KIND NAME
Corn

9. DATE OF DETERMINATION
1978

FEES RECEIVED
AMOUNT FOR FILING: $ 1,000
DATE: 6/1/83
AMOUNT FOR CERTIFICATE: $ 500.00
DATE: 11/15/84

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Iowa

12. DATE OF INCORPORATION
May 6, 1926

13. NAME AND ADDRESS OF APPLICANT REPRESENATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Dr. Richard L. McConnell
Plant Breeding Division
Pioneer Hi-Bred International, Inc.
P.O. Box 85
Johnston, IA 50131-0085

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*

b. ☒ Exhibit B, Novelty Statement

c. ☒ Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*

d. ☒ Exhibit D, Additional Description of the Variety

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)*
☐ Yes *(If "Yes," answer items 16 and 17 below)* ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ Yes ☐ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ Foundation ☐ Registered ☐ Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?
☐ Yes *(If "Yes," give names of countries and dates)*
☒ No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES?
☐ Yes *(If "Yes," give names of countries and dates)*
☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT
Pioneer Hi-Bred International, Inc.
by:

DATE

SIGNATURE OF APPLICANT
Richard L McConnell

DATE
May 26, 1983

C O R N

8300143

'G50'

14A. Exhibit A. Origin and Breeding History

Pedigree: 848/207)X1321X

Pioneer line 'G50', Zea mays L., a yellow dent corn inbred, was developed by Pioneer Hi-Bred International, Inc. from the F2 population of the single cross 848 x 207. The progenitors of 'G50'are also proprietary inbred lines of Pioneer Hi-Bred International, Inc. The pedigree method of breeding was used in the development of this inbred as per the following.

F2 seed was obtained in the field at Tipton, Indiana, during the summer of 1974 by selfing the F1 hybrid, 848 x 207. The F2 population was grown and self-pollinated at Algona, Iowa, in 1975. Twenty-three ears were saved from the F2 population. This F3 seed was grown ear-to-row at Homestead, Florida, during the winter of 1975-76. Five self-pollinated ears were saved from F3 ear-row number one. The F4 family was grown ear-to-row at Algona in 1976, and two self-pollinated ears from ear-row number three were saved. During 1977, the F5 generation was grown at Algona, and two self-pollinated ears were saved from the F5 ear-row number two. In addition, the F5 was crossed to an inbred tester for the purpose of getting an estimate of the line's general combining ability. In 1978, yield trials were conducted at Algona, Iowa, involving the testcross made in 1977 to the F5. In the nursery, three ears were saved from ear-row number one from the F5 generation. Additional crosses were made for yield testing in 1979. Based on hybrid yield test performance and the line's per se performance in the nursery, it was determined that this line was superior to other inbreds evaluated in 1978, and it was named 'G50' in December 1978. Since the time that the line was named, additional hybrid combinations have been evaluated and subsequent generations of the line have been grown and hand-pollinated with observations made for uniformity. An outline of the breeding profile of the inbred is attached.

'G50'has shown uniformity and stability for all traits as described in Exhibit C (form LPGS-470-28) - "Objective Description of Variety." It has been self-pollinated and ear-rowed a sufficient number of generations with careful attention paid to uniformity of plant type to assure genetic homozygosity and phenotypic stability. 'G50' has been increased by the Parent Corn Department, Pioneer's foundation seed group, each year since 1981. The line has been increased both by hand and in isolated fields with continued observation for uniformity.

14A. Exhibit A. Origin and Breeding History (continued)

Two variant traits have been observed in 'G50'. Under certain environmental conditions at maturity, the pericarp tends to "pop" which predisposes the ear to molds. In addition, it has been noticed in current Parent Corn seed lots that between 25 to 35 percent of the kernels lack the usual complement of embryo leaves. These abnormal kernels germinate, but the resultant seedlings die soon after emergence. This abnormality appears to be due to recessive gene action. Breeding techniques are currently being undertaken to identify an ear-row segregate that does not carry this variant trait.

Pioneer Hi-Bred International, Inc., Des Moines, Iowa, is the employer of the plant breeders involved in the selection and development of 'G50'. Pioneer Hi-Bred International, Inc. has the sole rights and ownership of 'G50'.

14A. Exhibit A. Origin and Breeding History of Corn Inbred Line 'G50'

Season/Year	Inbreeding Level	Nursery Location	Pedigree	Ears Saved
Summer 1973	F0	Tipton, IN	F1 cross made.	Bulk
Summer 1974	F1	Tipton, IN	848/207	Bulk
Summer 1975	F2	Algona, IA	848/207)X	23
Winter 1975-76	F3	Homestead, FL	848/207)X1	5
Summer 1976	F4	Algona, IA	848/207)X13	2
Summer 1977	F5*	Algona, IA	848/207)X132	2
Summer 1978	F6**	Algona, IA	848/207)X1321	3
December 1978	Line named 'G50'.			
1978-1982	Line increased by hand-pollination and in isolated fields with observations made for uniformity.			

*Testcross made for yield testing in 1978.

**More hybrid combinations made involving 'G50' for testing in 1979.

4B. Exhibit B. Novelty Statement

'G50' is most similar to the inbred line 207. 207 is also a proprietary inbred line of Pioneer Hi-Bred International, Inc. and is half the parentage of 'G50'. 'G50'differs from 207 in maturity, glume color, and silk color. 'G50' reaches 50% pollen shed and 50% silk, 115 and 100 heat units, respectively, later than 207. 'G50's' glume color is green whereas the glume color for 207 is red. The silk color of 'G50' is green; the silk color of 207 is red.

FORM APPROVED: OMB NO. 40-R3822

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Corn)

OBJECTIVE DESCRIPTION OF VARIETY
CORN *(ZEA MAYS)*

NAME OF APPLICANT(S)
Pioneer Hi-Bred International, Inc.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Plant Breeding Division
Department of Corn Breeding
PO Box 85
Johnston, IA 50131-0085

FOR OFFICIAL USE ONLY

PVPO NUMBER
8300143

VARIETY NAME OR TEMPORARY DESIGNATION
'G50'

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[2] 1 = SWEET 2 = DENT 3 = FLINT 4 = FLOUR 5 = POP 6 = ORNAMENTAL

2. REGION WHERE BEST ADAPTED IN THE U.S.A.:

[2] 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST
5 = SOUTHCENTRAL 6 = SOUTHWEST 7 = MOST REGIONS

3. MATURITY (In Region of Best Adaptability): *(Under "comments" (pg. 3) state how heat units were calculated)*

[6][6] DAYS FROM EMERGENCE TO 50% OF PLANTS IN SILK	[1][4][9][3]	HEAT UNITS
[ ][ ] DAYS FROM 50% SILK TO OPTIMUM EDIBLE QUALITY	[ ][ ][ ][ ]	HEAT UNITS
[ ][ ] DAYS FROM 50% SILK TO HARVEST AT 25% KERNEL MOISTURE	[ ][ ][ ][ ]	HEAT UNITS

4. PLANT:

[2][2][5] CM. HEIGHT (To tassel tip)

[1][0][0] CM. EAR HEIGHT (To base of top ear

[0][8] CM. LENGTH OF TOP EAR INTERNODE

Number of Tillers:

[1] 1 = NONE 2 = 1–2 3 = 2–3 4 = > 3

Number of Ears Per Stalk:

[2] 1 = SINGLE 2 = SLIGHT TWO-EAR TENDENCY
3 = STRONG TWO-EAR TENDENCY 4 = THREE-EAR TENDENC

Cytoplasm Type:

[1] 1 = NORMAL 2 = "T" 3 = "S" 4 = "C" 5 = OTHER (Specify) _____

5. LEAF (Field Corn Inbred Examples Given):

Color: Observed olive green

[3] 1 = LIGHT GREEN (HY) 2 = MEDIUM GREEN (WF9) 3 = DARK GREEN (B14) 4 = VERY DARK GREEN (K1

Angle from Stalk (Upper half):

[1] 1 = < 30° 2 = 30–60° 3 = > 60°

Sheath Pubscence:

[1] 1 = LIGHT (W22) 2 = MEDIUM (WF9)
3 = HEAVY (OH26)

Marginal Waves:

[2] 1 = NONE (HY) 2 = FEW (WF9) 3 = MANY (OH7L)

Longitudinal Creases:

[1] 1 = ABSENT (OH51) 2 = FEW (OH56A)
3 = MANY (PA11)

Width:

[0][9] CM. WIDEST POINT OF EAR NODE LEAF

Length:

[0][8][6] CM. EAR NODE LEAF

[2][0] NUMBER OF LEAVES PER MATURE PLANT

6. TASSEL:

[1][1] NUMBER OF LATERAL BRANCHES

Branch Angle from Central Spike:

[2] 1 = < 30° 2 = 30–40° 3 = > 45°

Peduncle Length:

[1][1] CM. FROM TOP LEAF TO BASAL BRANCHES

Pollen Shed:

[2] 1 = LIGHT (WF9) 2 = MEDIUM 3 = HEAVY(KY21)

Observed deep reddish-purple, secondary orange-yellow

[3] **Anther Color:** 1 = YELLOW 2 = PINK 3 = RED 4 = PURPLE 5 = GREEN

[5] **Glume Color:** 6 = OTHER (Specify) _____

Observed olive green

Pollen Restoration for Cytoplasms (0 = Not Tested, 1 = Partial, 2 = Good)

[0] "T" [0] "S" [0] "C" [ ] OTHER (Specify Cytoplasm and degrees of restoration) _____

7. EAR (Husked Ear Data Except When Stated Otherwise):

[1][6] CM LENGTH [3][6] MM. MID-POINT DIAMETER [9][8] GM. WEIGHT

Kernel Rows:

[2] 1 = INDISTINCT 2 = DISTINCT [1][4] NUMBER

[2] 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = SPIRAL

Silk Color (Exposed at Silking Stage):

[1] 1 = GREEN 2 = PINK 3 = SALMON 4 = RED

Observed greenish-yellow

Husk Color:

[2] FRESH [6] DRY 1 = LIGHT GREEN 2 = DARK GREEN 3 = PINK 4 = RED 5 = PURPLE 6 = BUFF

Husk Extention: (Harvest Stage)

[2] 1 = SHORT (Ears Exposed) 2 = MEDIUM (Barely Covering Ear) 3 = LONG (8–10CM Beyond Ear Tip) 4 = VERY LONG (> 10 CM)

Husk Leaf:

[3] 1 = SHORT (< 8 CM) 2 = MEDIUM (8–15 CM) 3 = LONG (> 15 CM)

Shank:

[1][0] CM LONG [8] NO. OF INTERNODES

Position at Dry Husk Stage:

[1] 1 = UPRIGHT 2 = HORIZONTAL 3 = PENDENT

Taper:

[2] 1 = SLIGHT 2 = AVERAGE 3 = EXTREME

Drying Time (Unhusked Ear):

[ ] 1 = SLOW 2 = AVERAGE 3 = FAST

8. KERNEL (Dried):

Size (From Ear Mid-Point):

[1][1] MM LONG [0][8] MM. WIDE [0][5] MM. THICK

Shape Grade (% Rounds)

[3] 1 = < 20 2 = 20–40 3 = 40–60 4 = 60–80 5 = > 80

8. KERNEL (Dried) :

[1] **Pericarp Color:** 1 = COLORLESS 2 = RED-WHITE CROWN 3 = TAN 4 = BRONZE 5 = BROWN 6 = LIGHT RED 7 = CHERRY RED 8 = VARIEGATED (Describe) _____

[1] **Aleurone Color:** 1 = HOMOZYGOUS 2 = SEGREGATING (Describe) _____

[1] 1 = WHITE 2 = PINK 3 = TAN 4 = BROWN 5 = BRONZE 6 = RED 7 = PURPLE 8 = PALE PURPLE 9 = VARIEGATED (Describe) _____

[3] **Endosperm Color:** 1 = WHITE 2 = PALE YELLOW 3 = YELLOW 4 = PINK-ORANGE 5 = WHITE CAP.

Observed orange-yellow

Endosperm Type:

[3] 1 = SWEET (su1) 2 = EXTRA SWEET (sh2) 3 = NORMAL STARCH 4 = HIGH AMYLOSE STARCH 5 = WAXY STARCH 6 = HIGH PROTEIN 7 = HIGH LYSINE 8 = OTHER (Specify) _____

[2][3] GM. WEIGHT /100 SEEDS (Unsized Sample)

9. COB:

[2][2] MM. DIAMETER AT MID-POINT

Strength:

[2] 1 = WEAK 2 = STRONG

Color:

[3] 1 = WHITE 2 = PINK 3 = RED 4 = BROWN 5 = VARIEGATED 6 OTHER (Specify) Reddish-orange

10. DISEASE RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = ~~Resistant~~ Tolerant):

[2]	STALK ROT (Diplodia)	[2]	STALK ROT (Fusarium)	[2]	STALK ROT (Gibberella)
[1]	NORTHERN LEAF BLIGHT	[1]	SOUTHERN LEAF BLIGHT	[2]	SMUT (Head)
[0]	SOUTHERN RUST	[2]	CORN SMUT (Common)	[2]	BACTERIAL WILT (Stewart's)
[0]	BACTERIAL LEAF BLIGHT	[1]	MAIZE DWARF MOSAIC	[0]	STUNT
[ ]	OTHER (Specify)				

11. INSECT RESISTANCT (0 = Not Tested, 1 = Susceptible, 2 = ~~Resistant~~ Tolerant):

[2]	CORNBORER (European)	[0]	EARWORM	[0]	SAPBEETLE	[0]	APHID
[0]	ROOTWORM (Northern)	[1]	ROOTWORM (Western)				
[0]	ROOTWORM (Southern)	[ ]	OTHER (Specify) _____				

12. VARIETIES MOST CLOSELY RESEMBLING THAT SUBMITTED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
Maturity	A632	Kernel Type	207
Plant Type	207	Quality (Edible)	
Ear Type	207	Usage	207

REFERENCES:

U.S. Department Agriculture. Yearbook 1937.

Corn: Culture, Processing, Products. 1970 Avi Publishing Company, Westport, Connecticut. (Numerous (Authors)

Emerson, R.A., G.W. Beadle, and A.C. Fraser. A Summary of Linkage Studies in Maize. Cornell A.E.S., Mem. 180. 1935.

The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wisconsin.

Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S. Bul. 831. 1959.

Butler, D.R. 1954 — A System for the Classification of Corn Inbred Lines — PhD. Thesis, Ohio State University.

COMMENTS: Heat units are accumulated from daily temperatures as follows:
HI = Maximum air temperature in Fahrenheit, but not greater than 86.
LO = Minimum air temperature in Fahrenheit, but not less than 50.
Heat units = (HI + LO)/2 - 50, but not less than 0.

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14D. Exhibit D. Additional Description of 'G50'

'G50' is a yellow dent inbred line of corn, Zea mays L.

As an inbred per se, 'G50' is similar to 207 in a number of plant and seed characteristics. Certain similarities are expected since half the parentage of 'G50' is 207. However, there are a number of distinguisnable differences between the two inbreds as already stated in Exhibit B.

'G50' is similar to 207 in plant height and leaf color. 'G50' is, however, higher eared than 207 (80 centimeters versus 100 centimeters). 'G50' also has a leaf angle of less than 30 degrees whereas 207 has a leaf angle of between 30 and 60 degrees. 'G50' has about three more leaves per mature plant (20 versus 17 for 207. 'G50' has a shorter shank than 207 (10 centimeters versus 16 centimeters). 'G50' has a shorter tassel peduncle than 207 (11 centimeters to versus 22 centimeters). 'G50' also has harder textured kernels and a higher level of tolerance to European corn borer than 207. For comparitive purposes, data are attached with 'G50' and 207 crossed to the same tester inbred lines and evaluated in the same locations.

'G50' has average to above average tolerance to Helminthosporium leaf spot (Helminthosporium carbonum), eye spot (Kabatiella zeae), anthracnose (Colletotrichum graminicola), common rust (Puccinia sorghi), Stewart's bacterial wilt (Erwinia stewartii), Goss's wilt (Corynebacterium nebraskense), and head smut (Sphacelotheca reiliana). It has average to below average tolerance to Southern leaf blight (Helminthosporium maydis) and to the MDM virus complex. It has below average tolerance to Northern leaf blight (Helminthosporium turcicum), gray leaf spot (Cercospora zeae), sorghum downy mildew (Sclerospora sorghi), and corn lethal necrosis virus disease. 'G50' has above average tolerance to the first brood of European corn borer, but it is below average for tolerance to the second brood of European corn borer. It has a rather low level of tolerance to Lasso - Dual (alachlor - metolachlor) herbicides.

'G50' makes high-eared hybrids that have stable yields under a wide range of environmental conditions. These hybrids are not only high yielding, but they dry down rapidly after reaching physiological maturity. 'G50' hybrids have average root quality and are above average for stalk quality. Grain of these hybrids is hard textured, of excellent quality, and high in test weight. Drought tolerance and late-season plant health of 'G50' crosses are above average.

14D. Exhibit D. Comparison of 'G50' and 207 crossed to the same tester lines and the hybrids evaluated at the same locations. All values are expressed as percent of the test mean except yield, which is expressed as bushels/acre adjusted to 15.5% grain moisture (1980 data).

	Inbred	Yield	Percent Yield	Moisture	GDU Shed	Stalk Lodging	Root Lodging	Ears/Plot	Stay Green	Test Weight	Grain Quality	Cob Scores	Seedling Vigor	Plant Height	Ear Height		
No. of Reps.		93	93	93	26	81	64	35	37	81	74	21	22	39	39		
	'G50'	134	101	99	103	105	104	101	116	103	110	119	92	100	104		
	207	136	102	98	100	105	112	101	120	101	97	108	101	99	99		
Diff.		2	1	1	3	0	8	0	4	2	13	11	9	1	6		

14D. Exhibit D. Comparison of 'G50' and 207 crossed to the same tester lines and the hybrids evaluated at the same locations. All values are expressed as percent of the test mean except yield, which is expressed as bushels/acre adjusted to 15.5% grain moisture (1981 data).

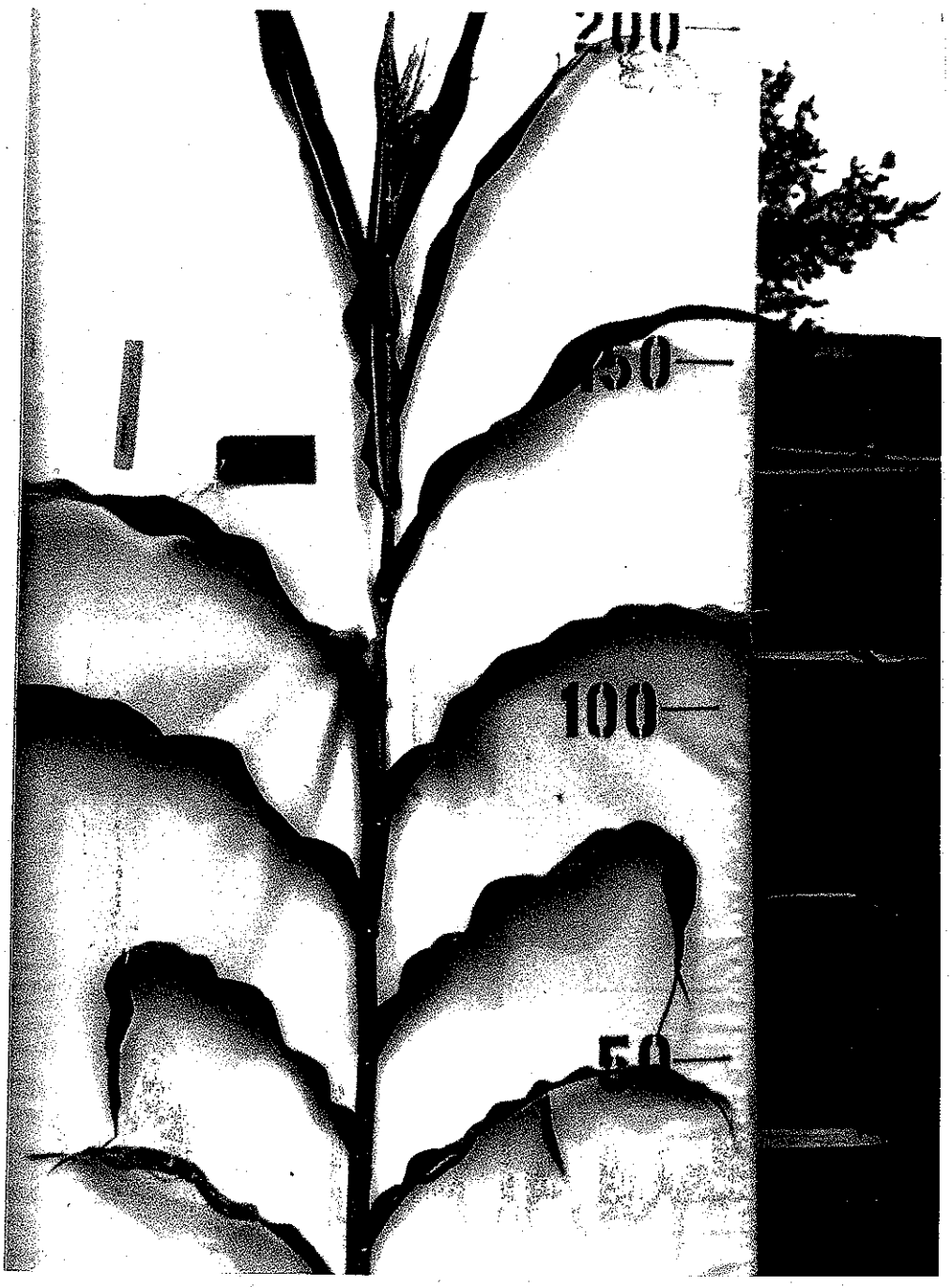
	Inbred	Yield	Percent Yield	Moisture	GDU Shed	Stalk Lodging	Root Lodging	Ears/Plot	Stay Green	Test Weight	Grain Quality	Cob Scores	Seedling Vigor	Plant Height	Ear Height		
No. of Reps.		367	367	367	65	367	144	105	174	354	298	118	213	174	174		
	'G50'	142	102	97	100	101	101	102	96	102	114	101	105	98	103		
	207	142	102	98	99	102	104	100	98	100	102	104	100	100	101		
Diff.		0	0	1	1	1	3	2	2	2	12	3	5	2	2		

14D. Exhibit D. Comparison of 'G50' and 207 crossed to same tester lines and the hybrids evaluated at the same locations. All values are expressed as percent of the test mean except yield, which is expressed as bushels/acre adjusted to 15.5% grain moisture (1982 Data).

	Inbred	Yield	Percent Yield	Moisture	GDU Shed	Stalk Lodging	Root Lodging	Ears/Plot	Stay Green	Test Weight	Grain Quality	Cob Scores	Seedling Vigor	Plant Height	Ear Height			
No. of Reps.		215	215	251	39	215	107	64	99	215	167	38	101	85	85			
	'G50'	147	101	98	100	101	102	101	97	104	114	94	92	100	102			
	207	146	100	99	99	103	103	98	99	101	100	103	99	100	99			
Diff.		1	1	1	1	2	1	3	2	3	14	9	7	0	4			

14D. Exhibit D. Additional Description of G50 (continued)

A. Whole plant



14D. Exhibit D. Additional Description of G50 (continued)

B. Tassel

14D. Exhibit D. Additional Description of G50 (continued)

C. Ear